GenArcade

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Project Objective -:

Our Project aims at making an Arcade game software wherein multiple players can access the machine to play various games and then be placed on the leaderboard in the name of their respective accounts.

Modules -:

1. iostream
2. string
3. vector
4. map
5. iterator
6. algorithm
7. exception
8. fstream.h
9. stdlib.h
10. conio.h
11. cstring
12. time.h

List of C++ features used -:

1. Object Oriented Concepts like Classes and inheritance
2. Polymorphism
3. Exception Handling

4. File Handling
5. Graphic creation
6. Standard Template Library (STL)

Design of the project -:

The project consists of 11 project file, namely:

1. accounts.h (author Nipun Mittal 21103162
2. accounts.cpp (author Nipun Mittal 21103162)
3. genArc.cpp (author Nipun Mittal 21103162)
4. casino.cpp (author Anshika Kamboj 21103148)
5. rps.cpp (author Vaibhav Singh 21103151)
6. MonsterGame.cpp (author Aviral Jain 21103146)
7. SnakeGame.cpp (author Aviral Jain 21103146)
8. zwar.cpp (author Vaibhav Singh 21103148)
9. guessgame.cpp (author Anshika Kamboj 21103148)
10. tictactoe.h (author Nipun Mittal 21103162)
11. tictactoe.cpp (author Nipun Mittal 21103162)

using g++ genArc.cpp will be saved as an executable file namely genArcade.cpp (command to be used 'g++ -o genArc genArc.cpp' by having installed gcc and g++ in command in windows or pre-installed/installed version in linux based systems and using gcc/g++ in command prompt or terminal by opening them in the folder containing all the files)
NOTE: All the 11 files must be in the same folder !!

Main Screen:

Here the user first arrives and gets the options to create new account in machine, login to existing one, or explore as a guest login. Then after the successful login accounts.dat file is created/appended which stores all the accounts created. While this is stored user is redirected to menu with options of many games to choose from, some single player, some against computer and some two player games.

Games:

User is to choose from the variety of games provided in the list. Game particular instruction for new games would be mentioned in specific game screen. Some games can be played alone with computer, some don't require a second personality, some show scenario related random event, some are to be played by more than 1 person and show the history and leaderboard of the same.

Output Screenshots:

```
*********************
*****GenArcade*****
*********************

Welcome to the GenArcade!!
1. Please Create an Account if you don't have one
            OR
2. Login with an already existant id
            OR
3. See account details by loggin in
            OR
4. Login as a Guest

Enter your choice code: 4
Please a select a gamecode from our variety of games:
1. Casino Bet Game
2. Tic Tac Toe (2 Player)
3. Rock Paper Scissor (vs Computer)
4. Monster Fight Game
5. Zombie War Scenario
6. The Snake Game
7. The Guessing Games
8. Exit

Enter the Game Code:
```

```
Enter the Game Code: 1

    $$$$      $$    $$$$$  $$$$$$$$  $$      $$     $$$
   $$  $$   $$ $$  $$   $$ $$   $$  $$      $$    $$  $$
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   $$      $$$$$$$$$ $$$$$   $$     $$  $$  $$   $$    $$
   $$  $$  $$     $$ $$   $$ $$     $$   $$ $$    $$  $$
    $$$$   $$     $$ $$$$$  $$$$$$$$ $$    $$      $$$
-----------------------------------------------------------
Enter Your Name : Nipun
Enter Deposit amount to play game : $25
_____RULES OF THE GAME_____
1. Choose any number between 1 to 10
2. If you win you will get 2 times of money you bet
3. If you bet on wrong number you will lose your betting amount
----------------------------------------------------------------------------------------------------------------------

Your current balance is $ 25
Nipun, enter money to bet : $10

Guess your number to bet between 1 to 10 :5

>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>> The winning number is : 2  <<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<

         $$    $$       $$ $$    $    $$  $$ $$
        $$ $$  $$   $$$ $$ $$   $$$  $$   $$ $$
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      $$$$$$$$ $$ $$ $$ $$ $$ $$ $$ $$    $$ $$
      $$    $$ $$    $$ $$ $$ $$ $$ $$    $$ $$

 You lost $ 10

Nipun, You have $ 15
*********************************************************************************************************************
                      Do you want to play again (y/n)?  y
*********************************************************************************************************************

Your current balance is $ 15
Nipun, enter money to bet : $15

Guess your number to bet between 1 to 10 :9
```

```
Guess your number to bet between 1 to 10 :9

>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>> The winning number is : 8  <<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<


                            $$    $$    $     $$ $$    $     $$ $$
                           $$ $$  $$    $$   $$$  $$    $$$    $$ $$
                           $$  $$  $$    $$  $$ $$  $$    $$ $$  $$ $$
                           $$$$$$$$$  $$ $$   $$ $$    $$ $$    $$ $$
                           $$    $$  $$ $$    $$    $$    $$    $$ $$

  You lost $ 15

Nipun, You have $ 0

You have no money to play ×××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××
                            Do you want to play again (y/n)?  n
×××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××××

########################################################################################################################
Thanks for playing game. Your balance amount is $ 0
########################################################################################################################
1. Casino Bet Game
2. Tic Tac Toe (2 Player)
3. Rock Paper Scissor (vs Computer)
4. Monster Fight Game
5. Zombie War Scenario
6. The Snake Game
7. The Guessing Games
8. Exit

Enter the Game Code: 7




--------------------------------------------------------------------------------------------

        @@@@@@@   @@    @@  @@@@@@@@   @@@@@@    @@@@@@     @@  @@
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        @@  @@ @@  @@    @@  @@        @@    @@  @@    @@    @@  @@
        @@  @@ @@  @@    @@  @@        @@    @@  @@    @@    @@  @@
        @@@@  @@    @@@@@    @@@@@@@@   @@@@@@    @@@@@        @@  @@
--------------------------------------------------------------------------------------------
                            GUESSING GAMES
--------------------------------------------------------------------------------------------
please enter your name : Nipun

What game you want to play?
1. Guess the number
2. Math answers
3. Guess the word

 choice : 1
HINT: The number is between 53 and 68
Enter your guess:
60
Wrong answer. The answer is 54
Do you want to continue playing guessing number game (y/n) : n

 do you want to choose some other game press 'y' else  press 'e' to exit : y
```

```
 do you want to choose some other game press 'y' else  press 'e' to exit : y
please enter your name :
What game you want to play?
1. Guess the number
2. Math answers
3. Guess the word

 choice : 2
What is 14 + 19 × 9 =
385
Wrong answer! The answer is: 185
Do you want to continue playing maths game (y/n) : n

 do you want to choose some other game press 'y' else  press 'e' to exit : y
please enter your name :
What game you want to play?
1. Guess the number
2. Math answers
3. Guess the word

 choice : 3
Guess the word:  a_p_e
Enter your answer:  apple
 Right answer!
 Do you want to continue playing maths game (y/n) : n

 do you want to choose some other game press 'y' else  press 'e' to exit : e
```

```
1. Casino Bet Game
2. Tic Tac Toe (2 Player)
3. Rock Paper Scissor (vs Computer)
4. Monster Fight Game
5. Zombie War Scenario
6. The Snake Game
7. The Guessing Games
8. Exit

Enter the Game Code: 6
```

```
####################
#                  #
#*                 #
#                  #
#                  #
#                  #
#                  #
#                  #
#                  #
#                  #
#                  #
#                  #
#          0       #
#                  #
#                  #
#                  #
#                  #
####################
score = 70
press X to quit the game
```

```
1. Casino Bet Game
2. Tic Tac Toe (2 Player)
3. Rock Paper Scissor (vs Computer)
4. Monster Fight Game
5. Zombie War Scenario
6. The Snake Game
7. The Guessing Games
8. Exit

Enter the Game Code: 5
```

```
Welcome to Zombie War.
Press [ENTER] to start.


Please enter your name: 6
How many zombies do you wish to fight? 6
Get ready to fight for your life, 6!
```

```
Please enter your name: 6
How many zombies do you wish to fight? 6
Get ready to fight for your life, 6!

Here comes zombie 1
Fighting...
You killed the zombie, but suffered injuries.


Here comes zombie 2
Fighting...
You killed the zombie!


Here comes zombie 3
Fighting...
You decapitated the zombie!


Here comes zombie 4
Fighting...
You have died.

You did not survive the zombie war.
Zombies killed: 3
Final score: 4

do  you want to continue playing (Y/N) : n
```

```
******Welcome to Tic Tac Toe!!********

Please choose an option from below:
1. Select existing 2 accounts
2. Create new accounts
3. See LeaderBoard
4. Back

Enter the code: 1
Please select the accounts from the list
1. Nipun
2. Earth
3. MilkyWay
4. AX
5. NM
Enter the account codes: 1 3
Enter the password for Nipun: 1234
```

```
******Welcome to Tic Tac Toe!!********

Please choose an option from below:
1. Select existing 2 accounts
2. Create new accounts
3. See LeaderBoard
4. Back

Enter the code: 1
Please select the accounts from the list below:
1. Nipun
2. Earth
3. MilkyWay
4. AX
5. NM
Enter the account codes: 1 3
Enter the password for Nipun: 1234
Player 1 verified!
Enter the password for MilkyWay:
```

```
******Welcome to Tic Tac Toe!!********

Please choose an option from below:
1. Select existing 2 accounts
2. Create new accounts
3. See LeaderBoard
4. Back

Enter the code: 1
Please select the accounts from the list below:
1. Nipun
2. Earth
3. MilkyWay
4. AX
5. NM
Enter the account codes: 1 3
Enter the password for Nipun: 1234
Player 1 verified!
Enter the password for MilkyWay: 9876
Could not verify Player 2 please register

Press any key to continue . . .
```

```
******CREATE ACCOUNT******

All the (*) fields are compulsory
for non(*) fields u may enter '-' to skip!!
*Enter your Full Name: Wolf Gupta
*Enter your Display Name: whitehatjr
*Enter the Password: ****
*Enter your Age: 10
*Enter your Email id: email@mail.com
Enter your Phone No: 1234567890

Account Successfully created!!
Press any key to continue . . .
```

```
|1       ||2       ||3       |
|   X    ||        ||        |
|        ||        ||        |
---------------------
|4       ||5       ||6       |
|        ||   O    ||        |
|        ||        ||        |
---------------------
|7       ||8       ||9       |
|        ||        ||        |
|        ||        ||        |
Player Enter the number of box to place marker: 9
```

```
|1       ||2       ||3       |
|   X    ||        ||   X    |
|        ||        ||        |
---------------------
|4       ||5       ||6       |
|        ||   O    ||        |
|        ||        ||        |
---------------------
|7       ||8       ||9       |
|   O    ||        ||   X    |
|        ||        ||        |
Player Enter the number of box to place marker: 2
```

```
Nipun won!!
Press any key to continue . . .
```

```
******LeaderBoard and History******

Earth v/s MilkyWay | Winner: Earth
Nipun v/s MilkyWay | Winner: Nipun
Nipun v/s Earth | Winner: Nipun
Nipun v/s whitehatjr | Winner: Nipun

Press any key to continue . . .
```

```
******Welcome to Tic Tac Toe!!*******

Please choose an option from below:
1. Select existing 2 accounts
2. Create new accounts
3. See LeaderBoard
4. Back

Enter the code: 4
Please a select a gamecode from our variety of games:
1. Casino Bet Game
2. Tic Tac Toe (2 Player)
3. Rock Paper Scissor (vs Computer)
4. Monster Fight Game
5. Zombie War Scenario
6. The Snake Game
7. The Guessing Games
8. Exit

Enter the Game Code: 4
Monster start.
::::::::::::::
The monster hit you for 5 damage.
You now have 85 hp left.

What do you want to do?
1 - Fierce Attack
2 - Lithe Attack
3 - Defensive moves
```

```
You did 20 damage to the monster!
The monster now have 22 hp left.
The monster hit you for 9 damage.
You now have 43 hp left.

What do you want to do?
1 - Fierce Attack
2 - Lithe Attack
3 - Defensive moves
2
You did 8 damage to the monster!
The monster now have 14 hp left.
The monster hit you for 0 damage.
You now have 43 hp left.

What do you want to do?
1 - Fierce Attack
2 - Lithe Attack
3 - Defensive moves
1
You did 0 damage to the monster!
The monster now have 14 hp left.
The monster hit you for 9 damage.
You now have 34 hp left.

What do you want to do?
1 - Fierce Attack
2 - Lithe Attack
3 - Defensive moves
2
You did 0 damage to the monster!
The monster now have 14 hp left.
The monster hit you for 15 damage.
You now have 19 hp left.

What do you want to do?
1 - Fierce Attack
2 - Lithe Attack
3 - Defensive moves
1
```

```
You did 20 damage to the monster!
The monster now have 22 hp left.
The monster hit you for 9 damage.
You now have 43 hp left.

What do you want to do?
1 - Fierce Attack
2 - Lithe Attack
3 - Defensive moves
2
You did 8 damage to the monster!
The monster now have 14 hp left.
The monster hit you for 0 damage.
You now have 43 hp left.

What do you want to do?
1 - Fierce Attack
2 - Lithe Attack
3 - Defensive moves
1
You did 0 damage to the monster!
The monster now have 14 hp left.
The monster hit you for 9 damage.
You now have 34 hp left.

What do you want to do?
1 - Fierce Attack
2 - Lithe Attack
3 - Defensive moves
2
You did 0 damage to the monster!
The monster now have 14 hp left.
The monster hit you for 15 damage.
You now have 19 hp left.

What do you want to do?
1 - Fierce Attack
2 - Lithe Attack
3 - Defensive moves
1
```

```
Enter the Game Code: 3

     &&&&&&      &&&&&&      &&&&&
     &&   &&     &&   &&    &&   &&
     &&   &&     &&   &&    &&
     &&&&&&      &&&&&&      &&&&
     &&&&        &&                &&
     && &&       &&         &&   &&
     &&  &&      &&          &&&&&

     ROCK        PAPER       SCISSOR


     -------------------------------------------
         Welcome to Rock, Paper and Scissors Game
     -------------------------------------------
         Note:
               r : Rock
               p : Paper
               s : scissor


     -------------------------------------------
     Enter your choice: r
     You won! Hurray
     Do you want to continue with another game: p
     -------------------------------------------
     Enter your choice: s
     You lose! Bad Luck
     Do you want to continue with another game:
```

Files after execution of the code :

.vscode	23-05-2022 05:01	File folder	
a.exe	23-05-2022 04:38	Application	3,166 KB
accounts.cpp	23-05-2022 04:13	Turbo C++	5 KB
accounts.dat	23-05-2022 05:46	DAT File	4 KB
accounts.h	23-05-2022 03:53	C Header Source F...	1 KB
casino.cpp	23-05-2022 02:31	Turbo C++	6 KB
genArc.cpp	23-05-2022 04:39	Turbo C++	5 KB
genArc.exe	23-05-2022 05:40	Application	3,166 KB
guessgame.cpp	23-05-2022 03:13	Turbo C++	5 KB
MonsterGame.cpp	23-05-2022 03:07	Turbo C++	5 KB
Project Documentation.docx	23-05-2022 05:09	Microsoft Word D...	17 KB
rps.cpp	23-05-2022 02:30	Turbo C++	4 KB
SnakeGame.cpp	23-05-2022 04:49	Turbo C++	2 KB
Synopsis (1).docx	17-05-2022 00:47	Microsoft Word D...	16 KB
tictactoe.cpp	23-05-2022 05:40	Turbo C++	7 KB
tictactoe.h	23-05-2022 01:22	C Header Source F...	1 KB
tttLeaderboard.txt	23-05-2022 05:48	Text Document	1 KB
zwar.cpp	23-05-2022 02:59	Turbo C++	4 KB

References:-

1. GeeksforGeeks
2. Stackoverflow
3. TutorialsPoint
4. Programiz
5. Pointers in C/C++
6. Quora
7. Class Slides